

IN THE CLAIMS

The status of the claims as presently amended is as follows:

1-10. (*Canceled*)

11. (*Withdrawn*) An image forming apparatus comprising:

a program module adapted to control a scanner engine to carry out a scanning process and a printer engine to carry out a printing process;

a storage unit adapted to obtain, from an external apparatus, license information of the program module and store the license information, the license information including a total number of print surfaces the program module is allowed to process and a total number of original surfaces the program module is allowed to process;

a counting unit adapted to count up values of used resources of the program module, the values being managed in a table, wherein when the program module controls the scanner engine to carry out the scanning process, the counting unit counts up a total number of original surfaces scanned, while when the program module controls the printer engine to carry out the printing process, the counting unit counts up a total number of print surfaces printed in the printing process;

a determining unit adapted to determine that the license information is invalid when the total count value of the surfaces scanned by the scanning process counted up by the counting unit exceeds the total number of the original surfaces included in the license information or when the total count value of the surfaces printed by the printing process counted up by the counting unit exceeds the total number of print surfaces included in the license information; and

a changing unit adapted to change a setting for starting the program module so that the program module does not start when the controller of the image forming apparatus is started, in the case where the determining unit determines that the license information invalid to disable the program module.

12. (*Currently Amended*) A license managing system comprising:

an image forming apparatus having a first controller and a program module, wherein the program module is adapted to control ~~a scanner engine to carry out a scanning process and a printer engine to carry out a printing process;~~ and

an information processing apparatus, ~~wherein the information processing apparatus comprises~~ comprising:

~~a setting unit~~ generating device adapted to ~~set~~ encrypt an input licensing condition ~~as a condition of the program module installed in the image forming apparatus;~~ an encrypting unit adapted to encrypt the licensing condition set by the setting unit using a public key to and generate license information, ~~including information for identifying for controlling the program module installed in the image forming apparatus, apparatus identifying information for identifying the image forming apparatus, and~~ to start the license information, which includes the encrypted licensing condition,

~~wherein the license information further~~ condition includes a module ID of the program module and a total number of print surfaces the program module is allowed to process ~~and a total number of original surfaces the program module is allowed to process;~~ and,

~~a first storage unit adapted to store the license information;~~

~~wherein the image forming apparatus comprises~~ first controller is adapted to:

~~a designating unit adapted to receive an instruction from a user to designate a storage destination of the license information stored in the first storage unit based on the received instruction;~~

~~an obtaining unit adapted to obtain based on the designated storage destination, the license information from the information processing apparatus; a decrypting unit adapted to decrypt the encrypted licensing condition included in the~~ obtained ~~license information stored in the first storage unit using a secret key;~~

~~a second storage unit adapted to store the license information including the decrypted licensing condition;~~

~~a changing unit adapted to change a setting for starting the program module so that the program module starts when the controller of the image forming apparatus is started, in the case where the apparatus identifying information included in the license information stored in the second storage unit identifies the image forming apparatus, and the information for identifying the program module included in the license information identifies the program module installed in the image forming apparatus;~~

update a record for managing used resources of the program module based on the module ID of the decrypted licensing condition included in the obtained license information;

~~a counting unit adapted to count up, when the changing unit changes the setting for starting the program module so that the program module starts when the controller of the image forming apparatus is started, values of used resources of the program module, the values being managed in a table, wherein when the program module controls the scanner engine to carry out the scanning process, the counting unit counts up a total number of original surfaces scanned, while when the program module controls the printer engine to carry out the printing process, the counting unit counts up a total number of print surfaces printed in the printing process carried out by the printer engine; and~~

~~a determining unit adapted to determine that the license information is invalid when the total count value of the surfaces scanned by the scanning process counted up by the counting unit exceeds the total number of the original surfaces included in the license information or when compare the total number of the print surfaces included in the updated record of the program module to perform a first determination of determining whether the total number of the print surfaces included in the updated record of the program module exceeds the total count value number of the counted print surfaces printed by the printing process counted up by the counting unit exceeds the total number of print surfaces included in the license information;; and~~

~~wherein the changing unit changes the setting for starting the program module so that the program module does not start when the controller of the image forming apparatus is started, in the case where the determining unit determines that the license information is invalid to disable the program module~~

error terminate the program module, when the first determination determines that the total number of the print surfaces indicated in the updated record of the program module exceeds the counted total number of the print surfaces.

13. (*Currently Amended*) A method of managing license information in a managing system comprising an information processing apparatus ~~having a first storage unit, and an image forming apparatus having a controller, a second storage unit, and a program module, wherein the program module is adapted to control a scanner engine to carry out a scanning process and a printer engine to carry out a printing process, the method comprising:~~

a setting generating step of setting, with the information processing apparatus, a encrypting an input licensing condition as a condition of the program module installed in the

~~image forming apparatus; an encrypting step of encrypting, with the information processing apparatus, the licensing condition set in the setting step using a public key to generate and generating license information, including information for identifying with the information processing apparatus, for controlling the program module installed in the image forming apparatus, apparatus identifying information for identifying the image forming apparatus, and to start the license information, which includes the encrypted licensing condition,~~

~~wherein the license information further condition includes a module ID of the program and a total number of print surfaces the program module is allowed to process and a total number of original surfaces the program module is allowed to process;~~

~~a first storing step of storing the license information in the first storage unit of the information processing apparatus;~~

~~a designating step of receiving, with the image forming apparatus, an instruction from a user to designate a storage destination of the license information stored in the first storage unit based on the received instruction;~~

~~an obtaining step of obtaining, with the image forming apparatus, based on the designated storage destination, the license information from the information processing apparatus; a decrypting step of and decrypting the encrypted licensing condition included in the obtained license information stored in the first storage unit using a secret key;~~

~~a second storing step of storing the license information including the decrypted licensing condition in the second storage unit of the image forming apparatus;~~

~~a changing step of changing, with the image forming apparatus, a setting for starting the program module so that the program module starts when the controller of the image forming apparatus is started, in the case where the apparatus identifying information included in the license information stored in the second storage unit identifies the image forming apparatus, and the information for identifying the program module included in the license information identifies the program module installed in the image forming apparatus;~~

~~an updating step of updating a record for managing used resources of the program module based on the module ID of the decrypted licensing condition included in the obtained license information;~~

~~a counting step of counting up, with the image forming apparatus, when the changing step changes the setting for starting the program module so that the program module starts when the controller of the image forming apparatus is started, values of used resources of the program module, the values being managed in a table, wherein when the program module-~~

~~controls the scanner engine to carry out the scanning process, the counting step counts up a total number of original surfaces scanned, while when the program module controls the printer engine to carry out the printing process, the counting step counts up a total number of print surfaces printed in the printing process carried out by the printer engine; and~~

~~a determining step of comparing the total number of the print surfaces indicated in the record of the program module updated in the updating step and the total number of the print surfaces counted up in the counting step to perform a first determination of determining, with the image forming apparatus, that the license information is invalid when the total count value of the surfaces scanned by the scanning process counted up in the counting step exceeds the total number of the original surfaces included in the license information or when whether the total number of the print surfaces indicated in the record of the program module exceeds the total count value number of the print surfaces printed by the printing process counted up in the counting step exceeds the total number of print surfaces included in the license information;~~
~~and~~

~~wherein the changing step changes the setting for starting the program module so that the program module does not start when the controller of the image forming apparatus is started, in the case where the determining step determines that the license information is invalid to disable the program module~~

~~an error terminating step of terminating the program module, with the image forming apparatus, when the determining step determines that the total number of the print surfaces indicated in the updated record of the program module exceeds the total number of the print surfaces counted up in the counting step.~~

14. (New) The license managing system according to claim 12, wherein the first controller performs the first determination every time when the first controller updates the record for managing the used resources and counts up the total number.

15. (New) The license managing system according to claim 12, wherein:

the program module further controls a scanner engine to carry out a scanning process,
the first controller is further adapted to count up the total number of the original surfaces scanned in the scanning process carried out by the scanner engine,

the first controller compares the total number of the original surfaces indicated in the updated record of the program module and the counted total number of the original surfaces to

perform a second determination of determining whether the total number of the original surfaces indicated in the updated record of the program module exceeds the counted total number of the original surfaces.

16. (New) The license managing system according to claim 15, wherein:

the first controller further performs a third determination of determining, based on the module ID, whether or not the total number of the print surfaces the program module allowed to process should be compared in the first determination, and when the third determination determines not to process, the first controller skips the first determination, and

the first controller further performs a fourth determination of determining, based on the module ID, whether or not the total number of the original surfaces the program module allowed to process should be compared in the first determination, and when the fourth determination determines not to process, the first controller skips the second determination.

17. (New) The method according to claim 13, wherein the determining step performs the first determination every time the updating step updates the record for managing the used resources and the counting step counts up the total number.

18. (New) The method according to claim 13, wherein:

the program module further controls a scanner engine to carry out a scanning process,
the counting step further count up the total number of the original surfaces scanned in the scanning process carried out by the scanner engine,

the determining step compares the total number of the original surfaces indicated in the updated record of the program module and the counted total number of the original surfaces to perform a second determination of determining whether the total number of the original surfaces indicated in the updated record of the program module exceeds the counted total number of the original surfaces.

19. (New) The method according to claim 18, wherein:

the determining step further performs a third determination of determining, based on the module ID, whether or not the total number of the print surfaces the program module allowed to process should be compared in the first determination, and when the third determination determines not to process, the determination step skips the first determination, and

the determining step further performs a fourth determination of determining, based on the module ID, whether or not the total number of the original surfaces the program module allowed to process should be compared in the first determination, and when the fourth determination determines not to process, the determination step skips the second determination.